

Claims:

1. A visible light emitting device, characterized in that said visible light emitting device includes at least:

a semiconductor light emitting element configured to emit bluish purple or blue light;

a support member formed with a depression for placing said semiconductor light emitting element therein, said depression having an inclined surface constituted as a visible wavelength light reflective surface;

terminals configured to supply electric power to said semiconductor light emitting element; and

a phosphor configured to absorb a part or the whole of light emitted from said light emitting element, and to emit fluorescence at a wavelength different from that of the absorbed light, the phosphor including X% of a first fluorescent material configured to emit green, yellowish green, or yellow light, and Y% of a second fluorescent material configured to emit yellowish red or red light, at a mixing ratio meeting a condition of $0 \leq X < 100$, $0 < Y \leq 100$, and $0 < X+Y \leq 100$,

wherein said second fluorescent material comprises a CaAlSiN_3 crystal phase including, dissolved therein in a solid state, one kind or two or more kinds of element(s) selected from Mn, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, and Lu.

2. The light emitting device of claim 1, characterized in that said second fluorescent material contains at least Eu.

3. The light emitting device to emit arbitrary colors of claim 1 or 2, characterized in that said semiconductor light emitting element is a blue light emitting diode having a main emission wavelength of 380nm to 485nm,

said first fluorescent material is a phosphor powder having a main emission wavelength of 495nm to 585nm,

said second fluorescent material is a phosphor powder having a main emission wavelength of 585nm to 780nm, and

said phosphor powders are mixed, dispersed in a resin, and mounted to cover said blue light emitting diode element.

4. A lighting apparatus characterized in that said lighting apparatus includes three or more light source units, each light source unit including at least one light emitting device,

said light emitting device including at least:

a semiconductor light emitting element configured to emit bluish purple or blue light;

a support member formed with a depression for placing said semiconductor light emitting element therein, said depression having an inclined surface constituted as a visible wavelength light reflective surface;

terminals configured to supply electric power to said semiconductor light emitting element; and

a phosphor configured to absorb a part or the whole of light emitted from said light emitting element, and to emit fluorescence at a wavelength different from that of the absorbed light, the phosphor including at least one of a first fluorescent material configured to emit green,

yellowish green, or yellow light, and a second fluorescent material configured to emit yellowish red or red light,

wherein each of said light source units or each of said light emitting device has a mixing ratio of said first fluorescent material to said second fluorescent material, which mixing ratio is different from those of the other light source units or other light emitting devices, in a manner that different light emission colors are visible, site by site of said lighting apparatus.

5. The lighting apparatus of claim 4, characterized in that the light emitting device of any one of claims 1 through 3 is used as said light emitting device.

6. The lighting apparatus of claim 5, characterized in that each light source unit is optically connected with a light guiding member including a scattering element.

7. The lighting apparatus of claim 6, characterized in that said scattering element comprises air bubbles, and said light guiding member is a rod-like member made of transparent resin.